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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,862

09/30/2005

Roman Stauch

05-565

6071

34704 7590 09/26/2007

BACHMAN & LAPOINTE, P.C.

900 CHAPEL STREET

SUITE 1201

NEW HAVEN, CT 06510

EXAMINER

SIGLER, JAY R

ART UNIT

PAPER NUMBER

3709

MAIL DATE

DELIVERY MODE

09/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,862

Applicant(s)

STAUCH, ROMAN

Examiner

Jay R. Sigler

Art Unit

3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☒ Claim(s) 19,21,22,25,28 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 30 September 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 21 states a “motor element, with downstream gear” while the specification states a “motor element and, if appropriate, upstream gear”.
3. Claims 19, 21, 22, 25, and 28 are objected to because of the following informalities:
 - a. Concerning claim 19, “the bone” should be changed to --a bone-- for clarity.
 - b. Concerning 21 and 22, “the at least one lock” should be changed to --the at least one locking element-- for clarity.
 - c. Concerning claim 25, “the bone segment” should be changed to --a bone segment-- for clarity.
 - d. Concerning claim 28, “the guide slot (6)” should be changed to --the guide element (1)-- for clarity since the recess is in the guide element.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15-18, 20, 24, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Baumgart et al. (U.S. Patent 5,976,138).

e. Concerning claim 15, Baumgart et al. teaches a device for lengthening bones (Figures 1 through 8), comprising at least two elements (see Figure 2) which can be moved relative to one another, and including at least one locking element (taken to be embodied by part 20 and 81 together) axially movable in or along a guide element 10.

f. Concerning claim 16, Baumgart et al. teaches means (18, as a rotational actuator, and 30, as a threaded rod) for moving the at least one locking element in or along the guide element.

g. Concerning claim 17, Baumgart et al. teaches means comprising at least one drive unit (18, as a rotational actuator, and 30, as a threaded rod).

h. Concerning claim 18, Baumgart et al. teaches the guide element 10 has an elongate, continuous guide slot 16.

- i. Concerning claim 20, Baumgart et al. teaches the guide element 10 comprises, at one end, a receiving opening (see Figure 2 and 4) for the reception and engagement of a drive unit.
- j. Concerning claim 24, Baumgart et al. teaches the locking element (20 and 81) comprises a rectangular cross section (as seen in Figure 2) and engages at least partially over an outside of the guide slot of the guide element (bolt 81, which is taken to be part of the locking element, is seen over an outside of the guide slot 16 of the guide element 10 in Figures 6 through 8).
- k. Concerning claim 27, Baumgart et al. teaches the drive unit 18 is pushed axially into the receiving opening (seen in Figure 2), and a motor (taken to mean one that imparts motion, (1997). In *Merriam-Webster's Collegiate Dictionary*. Tenth Edition) element 18 is fitted against rotation in the guide element 10 (Column 5, Lines 53-59; taken to be embodied by actuator 18 attached to the abutment; attached taken to mean to join, fasten, or connect, (2000). In *Collins English Dictionary*. Retrieved September 19, 2007, from <http://www.credoreference.com/entry/2619187>) in the area of the receiving opening (seen in Figure 2).
- l. Concerning claim 28, Baumgart et al. teaches at one end of the guide element, there is a recess (taken to be embodied by the groove on the surface of the 10, 18, or 20; recess. 1992. In *Academic Press Dictionary of Science and Technology*. Retrieved September 17, 2007, from

<http://www.credoreference.com/entry/3150051>) for, or alternatively capable of, bearing a spindle element 30.

6. Claims 15, 16, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Muschler et al. (U.S. Patent 5,626,579). Muschler et al. teaches a device for lengthening bones 10, comprises at least two elements (20 and 32), which can be moved relative to one another, and including at least one locking element 20 axially movable along a guide element 32, further including means (actuator 36 and cable 17) for moving the at least one locking element 20 along the guide element 32. Muschler et al. also teaches the guide element comprises, at each end, a radial through-openings (see Figure 1A, where parts 33 go through the guide element 32).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 21-23 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgart et al. (U.S. Patent 5,976,138) as applied to claims 17 or 20 above, and further in view of Baumgart et al. (Clinical Orthopaedics 1997).

Concerning claim 21, U.S. Patent 5,976,138 teaches the claimed invention, as shown in paragraph 5 above, including that the drive unit is formed by a spindle element 30 wherein the at least one locking element sits on the

spindle element. U.S. Patent 5,976,138 probably does not teach a motor element, with a downstream gear and control unit. Clinical Orthopaedics 1997 teaches a bone lengthening device that uses a motor drive with a gear and spindle mechanism (see page 136, Materials and Methods, The Nail) and a control unit (taken to be embodied by the antenna used to control the motor) because it combines the advantages of using an internal bone device (taken to be embodied by a nail) with those of an implantable source of power (see page 136, 3rd paragraph). It would have been obvious to someone of ordinary skill in the art at the time of the invention to use a geared motor drive suggested by Clinical Orthopaedics 1997 with the invention of U.S. Patent 5,976,138 in order to combine the advantages of using an internal bone device with those of an implantable source of power.

Concerning claim 22, U.S. Patent 5,976,138 teaches the spindle element comprises a threaded rod 30 which passes through the at least one locking element (taken to be embodied by part 20 and 81 together) and engages with the at least one lock (see Figure 2).

Concerning claim 23, U.S. Patent 5,976,138 teaches the drive unit radial turns the spindle element/threaded rod 30, wherein the locking element (taken to be embodied by part 20 and 81 together) inserted into the guide slot 16, is moved axially to and fro along the guide element 10 (Column 5, Lines 53-59 and Figures 5-8).

Concerning claim 25, U.S. Patent 5,976,138 teaches a bone segment (83, 84, 85, or 87), can be moved via the locking element (taken to be embodied by part 20 and 81 together) by means of the spindle element 30 being driven by the drive unit 18, wherein a separating site (Δ D or 86) is formed between a bone part 84 and the bone segment 87.

Concerning claim 26, U.S. Patent 5,976,138 teaches the locking element (taken to be embodied by part 20 and 81 together) engages in the bone segment (85/87; seen in Figures 6-8).

Claims 27 and 28 are taken to be anticipated by U.S. Patent 5,976,138. The rejection set forth herein is a back up in the event that a motor element defines over the drive element taught by U.S. Patent 5,976,138. Concerning claim 27, U.S. Patent 5,976,138 teaches the drive unit 18 is pushed axially into the receiving opening (seen in Figure 2), and a drive element 18 is fitted against rotation in the guide element 10 (Column 5, Lines 53-59; taken to be embodied by actuator 18 attached to the abutment) in the area of the receiving opening (seen in Figure 2). It would have been obvious to someone of ordinary skill in the art at the time of the invention to use the geared motor drive of Clinical Orthopaedics 1997 with the invention of U.S. Patent 5,976,138 in order to combine the advantages of using an internal bone device with those of an implantable source of power. Concerning claim 28, U.S. Patent 5,976,138 teaches at one end of the guide element, there is a recess (taken to be embodied by the groove on the surface of the 10, 18, or 20; recess. 1992. In *Academic*

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Press Dictionary of Science and Technology. Retrieved September 17, 2007, from <http://www.credoreference.com/entry/3150051>) for, or alternatively capable of, bearing a spindle element 30.

Allowable Subject Matter

9. Claim 29 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or fairly suggest the added limitations of claim 29. For example, in the context of the claim taken as a whole, there is no suggestion in the prior art references obtained, applied individually or in combination, to provide two locking elements that are driven toward or away from one another in the guide slot of the guide element.

Conclusion

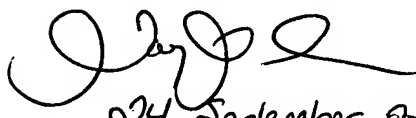
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay R. Sigler whose telephone number is (571) 270-3647. The examiner can normally be reached on Monday through Thursday from 8 AM to 4 PM (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Yao can be reached on (571) 272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


24 September 2007
jrs


SAMCHUAN C. YAO
SUPERVISORY PATENT EXAMINER